

Notice of Allowability	Application No.	Applicant(s)	
	10/501,690	ZHANG ET AL.	
	Examiner	Art Unit	
	Jason M. Nolan, Ph.D.	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/17/2004.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>7/17/04 & 10/25/04</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input checked="" type="checkbox"/> Other <u>PTLO-413B</u>. |
|--|--|

DETAILED ACTION

Claims 1-26 are currently pending in the instant application. **Claims 27-31** are cancelled.

Priority

This application is a 371 of PCT/EP02/03858, filed on April 8, 2002. Acknowledgment is made of applicant's claim for foreign priority based on applications 10119137.5 and 10148598.0 filed in Germany on April 19, 2001 and October 2, 2001 respectively.

Information Disclosure Statement

Applicant's information disclosure statement (IDS), filed on October 16, 2003 has been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Gray on March 1, 2006.

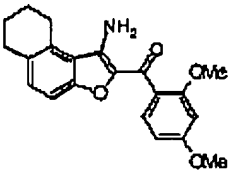
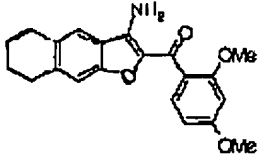
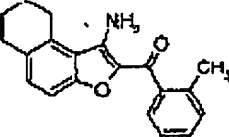
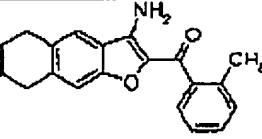
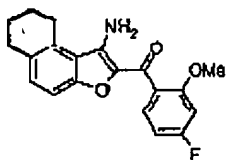
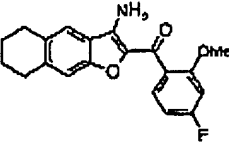
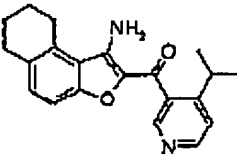
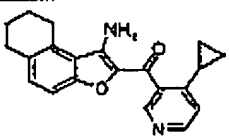
The application has been amended as follows:

1. In **Claim 18**, page 3 of the claims, line 24, after "A method for" and before "cytomegalovirus" delete "controlling" and insert - - treating - -.

Art Unit: 1626

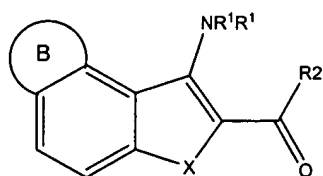
2. In **Claim 9**, page 3 of the claims, line 4, after “. . .substituted B” delete “, if it were not fused to the core molecule, is saturated.” and insert - - contains no unsaturation other than the shared double bond which is part of the phenyl ring from which B is fused to. - -.
3. In **Claim 16**, page 3 of the claims, line 20, after “. . .substituted B” delete “, if it were not fused to the core molecule, is saturated.” and insert - - contains no unsaturation other than the shared double bond which is part of the phenyl ring from which B is fused to. - -.
4. Delete **page 46** of the specification and insert the following page:

Art Unit: 1626

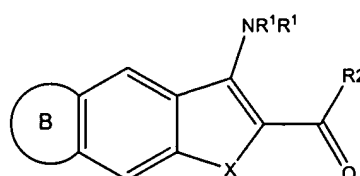
Example	Structure	R _f (TLC solvent) Or RT (min)*	LC/MS ([M+H] ⁺)	Synth. of (III)**	Synth. of (IIa) or (IIb)**	Synth. of (Ia) or (Ib)
128		R _f = 0.65 [30% EtOAc/HEX]	362	comm	II-1	III-2
129		R _f = 0.60 [30% EtOAc/HEX]	352	comm	II-1	III-2
130		R _f = 0.70 [30% EtOAc/HEX]	306	comm	II-1	III-2
131		R _f = 0.65 [30% EtOAc/HEX]	306	comm	II-1	III-2
132		R _f = 0.68 [30% EtOAc/HEX]	340	I-2	II-1	III-2
133		R _f = 0.63 [30% EtOAc/HEX]	340	I-2	II-1	III-2
134		R _f = 0.25 [30% EtOAc/HEX]	335	I-3	II-1	III-2
135		R _f = 0.25 [30% EtOAc/HEX]	333	I-3	II-1	III-2

Reasons for Allowance

The present invention relates to compounds and compositions of the formulas Ia and Ib in **Claim 1**, shown below. The tricyclic core is substituted at C2 with an acyl group and at C3 with an amino group. The variable **X** is either O or S, the **B** ring is a 5 or 6-membered moiety, and **R**² is a cyclic group. The combination of these substitutions affords novelty to this invention and no prior art anticipates or renders this invention obvious.



formula Ib



formula Ia

There exists no prior art for these tricyclic compounds. The potential pharmaceutical use for these compounds, outlined in the specification, is for the treatment of hyperproliferative disorders. The closest art of compounds and compositions, which may have led to the discovery of formulas Ia and Ib all have bicyclic cores.

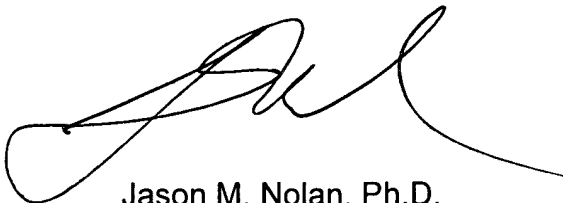
Art Unit: 1626

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Jason M. Nolan, Ph.D.** whose telephone number is **(571) 272-4356**. The Examiner can normally be reached on Monday - Friday (9:00 - 5:30PM).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason M. Nolan, Ph.D.
Patent Examiner
Art Unit 1626

KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER



Joseph McKane
Supervisory Patent Examiner
Art Unit 1626
Date: March 1, 2006